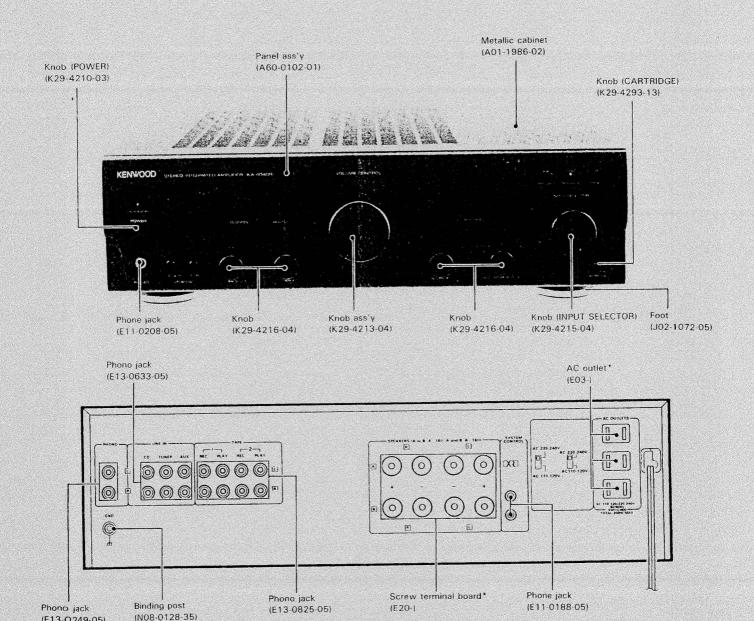
(E13-O249-05)

STEREO INTEGRATED AMPLIFIER KA-4040R SERVICE MANUAL

# KENWOO

KENW-03205

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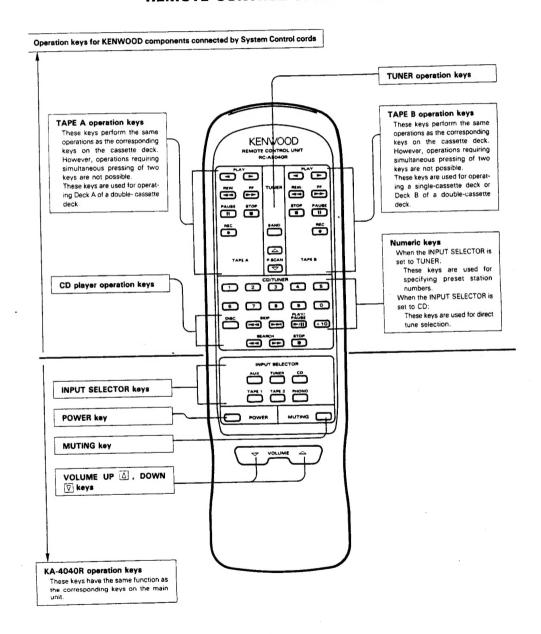
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# 

# KA-4040R

### REMOTE CONTROL OPERATION



### CIRCUIT DESCRIPTION

### MICROPROCESSOR (µPD75104G-778)

### 1. TEST MODE

### 1.1 Test Mode Using Mainframe Keys

(1) Setting

Plug in while pressing the SOURCE DIRECT key.

### (2) Contents

- Switch the power on so that all LED indicators go on. Operate all TACT keys and the rotary encoder to cancel all the LED indicators that go on. In the all-light mode, all the INPUT SELECTOR LED indicators do not go on at the same time. The next SELECTOR LED indicator goes on approximately 100 ms after one SELECTOR LED indicator goes on in the same order as during input selector selection using the rotary encoder, because the output current exceeds the absolute maximum rating when all the INPUT SELECTOR LED indicators go on, since each LED indicator is directly driven by a microcomputer.
- When the LOUDNESS key is pressed while the test mode is set with a mainframe key. The electromotive VOLUME decreases. When the MUTING key is pressed, the VOLUME increases. The VOLUME stops when the SOURCE DIRECT key is pressed.

### (3) Cancellation

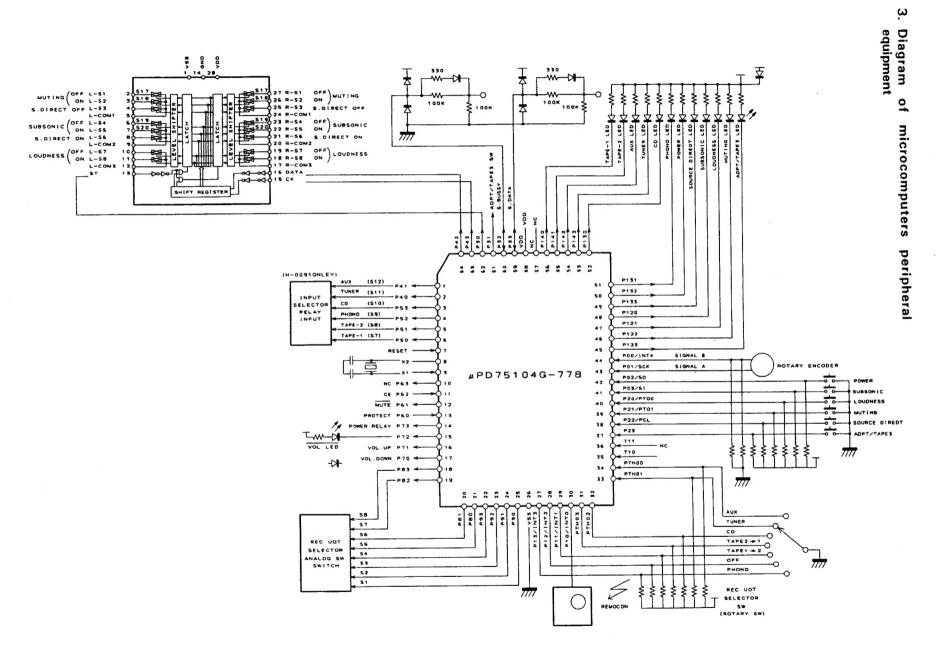
 Plug off. If there a backup function is to be used, plug off and destroy the backup check data when a test mode flag is set during backup operation.

### 2. INITIALIZING

Insert the AC plug into a wall outlet while pressing the POWER key.

4

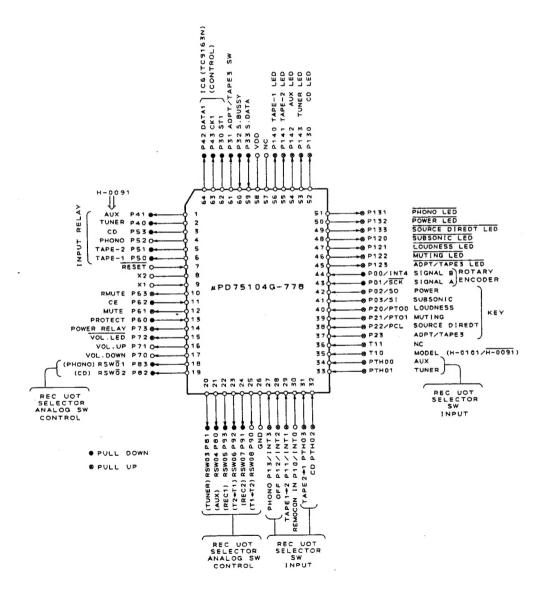
# CIRCUIT DESCRIPTION



### **CIRCUIT DESCRIPTION**

# KA-4040R

### 4. PIN CONNECTIONS



### CIRCUIT DESCRIPTION

Pin No.	Pin name	I/O	Name	Description
1	P41	0	SRAUX	AUX SELECTOR RELAY control pin (high when active). Outputs a low signal in the backup mode.
2	P40	0	SRTUNER	TUNER SELECTOR RELAY control pin (high when active). Outputs a low signal in the backup mode.
3	P53	0	SRCD	CD SELECTOR RELAY control pin (high when active). Outputs a low signal in the backup mode.
4	P52	0	SRPHONO	PHONO SELECTOR RELAY control pin (high when active). Outputs a low signal in the backup mode.
5	P51	0	SRTAPE2	TAPE2 SELECTOR RELAY control pin (high when active). Outputs a low signal in the backup mode.
6	P50	0	SRTAPE1	TAPE1 SELECTOR RELAY control pin (high when active). Outputs a low signal in the backup mode.
7	/RESET	ı		Microcomputer reset input pin.
8	X2	0		Ceramic connection pin for microcomputer system
9	X1	1		clock oscillation (4.19 MHz).
10	P63	0	RMUTE	Unused. Enters the input mode during backup.
11	P62	1	/CE	Backup state detection pin (low when active). Enters the input mode during backup.
12	P61	0	MUTE	Mute signal output pin (high when active). Enters the input mode during backup.
13	P60	1	PROTECT	Protect state detection pin (high when active). The POWER LED indicator blinks when a high signal is input to this pin during the power-on sequence. Enters the input mode during backup.
14	P73	0	POWER RELAY	POWER RELAY control pin. POWER ON: High POWER OFF: Low Enters the input mode during backup.
15	P72	0	VOL. LED	Volume index LED control pin. Goes ON: Low Goes OFF: High Enters the input mode during backup.
16	P71	0	VOL. UP	Electromotive volume control Up signal output pin. Volume control Up: High Except volume control Up: Low Enters the input mode during backup.
17	P70	0	VOL. DOWN	Electromotive volume control Down signal output pin. Volume control Down: High Except volume control Down: Low
18~25	P83~P90	0	RSW08~RSW01	Control signal output pin of REC OUT SELECTOR analog switch (high when active). Outputs a signal according to the REC Out selector state as shown on the attached sheet, Outputs a low signal in the back-up mode.
26	Vss		GND	Microcomputer GND pin.
27	P13/INT3	1	RSWI (PHONO)	REC out selector state setting input pin (PHONO). (Low when active.)
28	P12/INT2	1	RSWI (OFF)	REC out selector state setting input pin (OFF). (Low when active.)
29	P11/INT1	1	RSWI (TAPE1→2)	REC out selector state setting input pin (TAPE1→TAPE2). (Low when active.)

# CIRCUIT DESCRIPTION

Pin No.	Pin name	I/O	Name	Description
30	PIO/INITO	1	REMOCON IN	Remote control signal input pin.
31	РТН03	ı	RSWI (TAPE2→1)	REC out selector state setting input pin (TAPE2 → TAPE1). (Low when active.)
32	PTH02	ı	RSWI (CD)	REC out selector state setting input pin (CD). (Low when active.)
33	PTHO1	ŀ	RSWI (TUNER)	REC out selector state setting input pin (TUNER). (Low when active.)
34	РТНОО	ı	RSWI (AUX)	REC out selector state setting input pin (AUX). (Low when active.)
35	TIO	1		Unused.
36	TI1	ı		Unused.
37	P23	1	KEYIN (ADPT/TAPE3)	ADPT/TAPE3 key input pin (low when active). Enter the input mode during backup.
38	P22/PCL	1	KEYIN (SOURCE DIRECT)	SOURCE DIRECT key input pin (low when active). Enters the input mode during backup.
39	P21/PTO1	1	KEYIN (MUTING)	MUTING key input pin (low when active). Enters the input mode during backup.
40	P20/PT00	ī	KEYIN (LOUDNESS)	LOUDNESS key input pin (low when active). Enters the input mode during backup.
41	PO3/SI	1	KEYIN (SUBSONIC)	SUBSONIC key input pin (low when active).
42	PO2/SO	1	KEYIN (POWER)	POWER key input pin (low when active). Enters the input mode during backup.
43	PO1/SCK	1	REI A	ROTARY ENCODER A signal input pin. Enters the in put mode during backup.
44	POO/INT4	1	REI B	ROTARY ENCODER B signal input pin.
45	PI23	0	ADPT/TAPE23 LED	ADPT/TAPE3 LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
46	P122	0	MUTING LED	MUTING LED control pin (low when active). No pul up resistor is incorporated by a mask option. Enters the input mode during backup.
47	PI21	0	LOUDNESS LED	LOUDNESS LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
48	P120	0	SUBSONIC LED	SUBSONIC LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
49	P133	0	SOURCE DIRECT LED	SOURCE DIRECT LED control pin (low when active No pull-up resistor is incorporated by a mask optio Enters the input mode during backup.
50	PI32	0	POWER LED	POWER LED control pin (low when active). No pul up resistor is incorporated by a mask option. Enter the input mode during backup.
51	PI31	0	PHONO LED	PHONO LED control pin (low when active). No pul up resistor is incorporated by a mask option. Enter the input mode during backup.
52	P130	0	CD LED	CD LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters t input mode during backup.

# KA-4040R KA-4040R

# CIRCUIT DESCRIPTION

Pin No.	Pin name	1/0	Name	Description
53	PI43	0	TUNER LED	TUNER LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
54	PI42	0	AUX LED	AUX LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
55	PI41	0	TAPE2 LED	TAPE1 LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
56	P140	0	TAPE1 LED	TAPE1 LED control pin (low when active). No pull-up resistor is incorporated by a mask option. Enters the input mode during backup.
57	NC			
58	Vdd			Microcomputer power supply pin.
59	P33	1/0	SDATA	Serial communication SDATA signal input/output pin. Enters the input mode during backup.
60	P32	I/O	SBUSY	Serial communication SBUSY signal input/output pin. Enters the input mode during backup.
61	P31	0	ADPT/TAPE3	ADPT/TAPE3 analog switch control signal output pin. ADPT/TAPE3 ON: High ADPT/TAPE3 OFF: low Outputs a low signal in the backup mode.
62	P30	0	ST1	FUNCTION IC TC9163N ST signal output pin for MUTING, SUBSONIC, SOURCE DIRECT, and LOUD-NESS. Usually set low. Outputs a low signal in the backup mode.
63	P43	0	CK1	FUNKTION IC TC9163N CK signal output pin for MUTING, SUBSONIC, SOURCE DIRECT, and LOUD-NESS. Usually set low. Outputs a low signal in the backup mode.
63	P43	0	DATA1	FUCTION IC TC9163N DATA signal output pin for MUTING, SUBSONIC, SOURCE DIRECT, and LOUD-NESS. Usually set low. Outputs a low signal in the backup mode.

# ADJUSTMENT/REGLAGE/ABGLEICH

### **ADJUSTMENT**

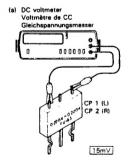
No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER Setting	ALIGNMENT POINTS	ALIGN FOR	FIG.
		e specified, set AKER: B REC OU	the respective su T: OFF SELECTOR		;		
1	IDLE CURRENT	_	Connect a DC voltmeter across CP1 (L) CP2 (R) (X09-)	VOLUME: 0	VR1 (L) VR2 (R) (X09-)	15 mV (34 mA).	(a)

### REGLAGES

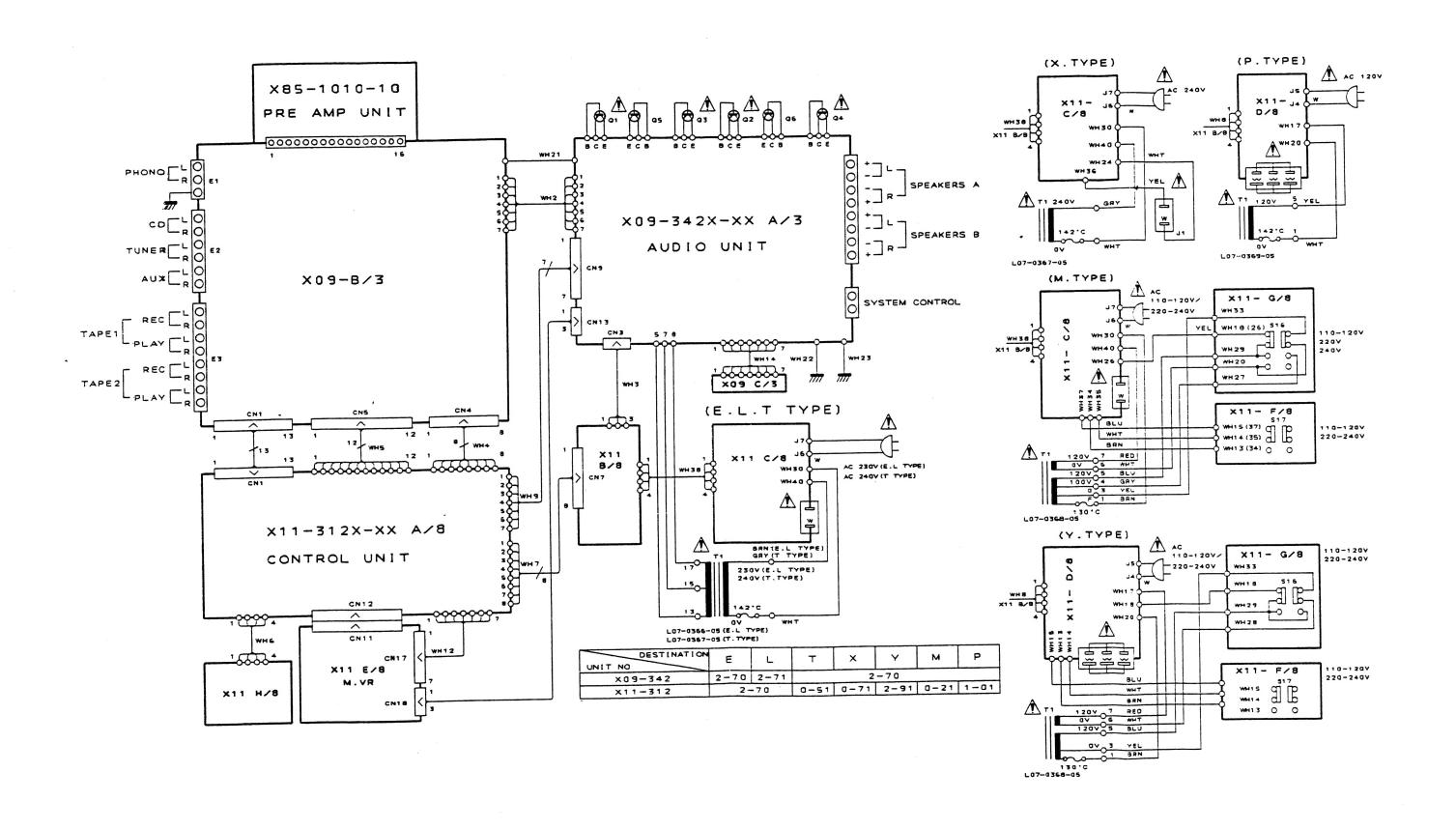
<b>.</b>		REGLAGE DE	REGLAGE DE	REGLAGE DE	POINTS DE	ALLOWED DOUB	210
N	ITEM	L' ENTREE	LA SORTIE	L'AMPLIFICATEUR		ALIGNER POUR	FIG.
1	Sauf indicatio	ncontraire, régl	er comme suit les	commandes respect	ives:		
	POWER: ON SPEA	KER: B REC OUT:	OFF SELECTOR: PHO	NO			
			Connecter un				
			voltmètre de CC		VR1 (G)		
1	COURANT DE	-	SUR CP1 (G)	VOLUME: 0	VR2 (D)	15 mV (34 mA).	(a)
	POLARISATION		CP2 (D)		(X09-)		1
			(X09-)				

### **ABGLEICH**

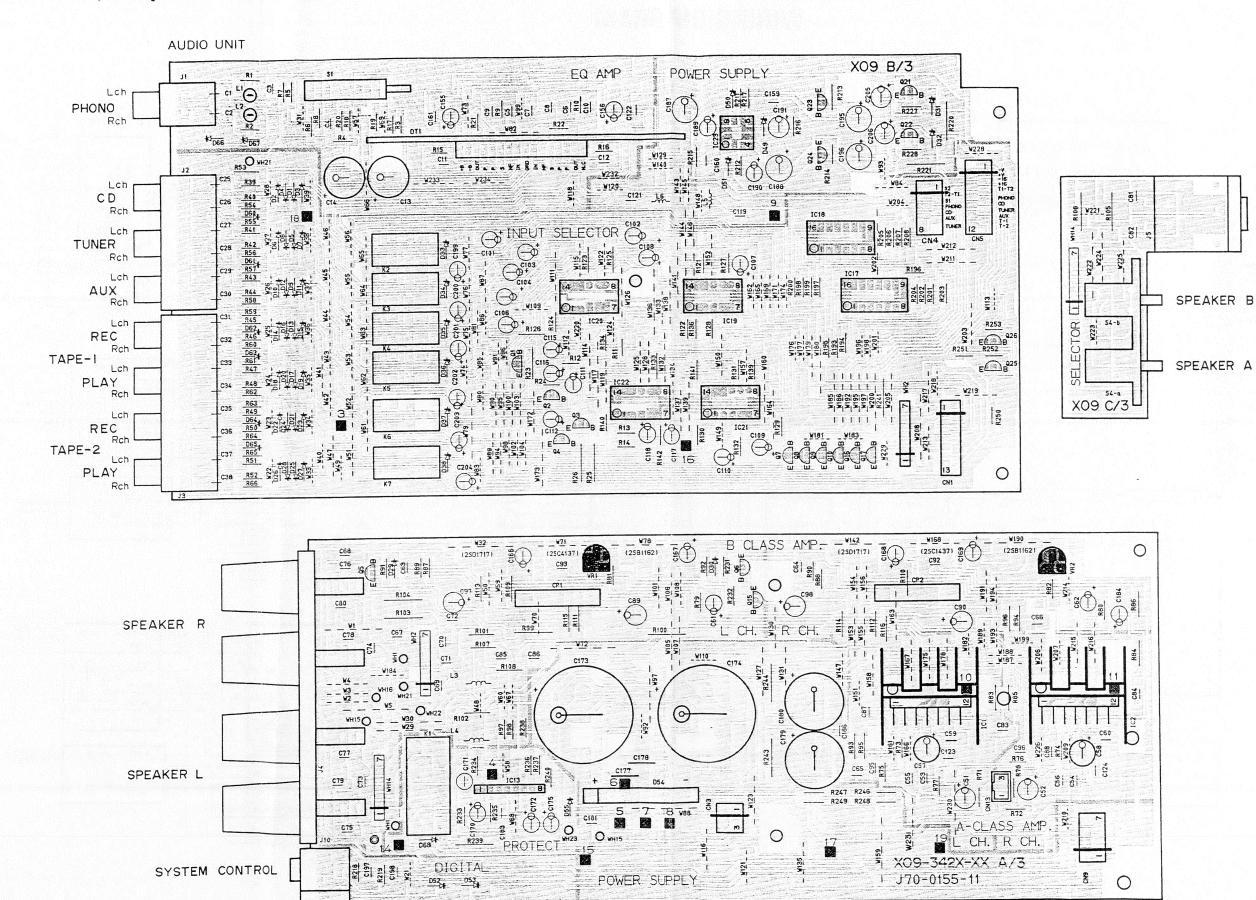
NR.	GENGENSTAND	EINGANGS- EINSTELLUNG	AUSANG- Einstellung	VORSTÄRKER- Einstellung	ABGLEICHE- PUNKTE	ABGLEICHEN FÜR	ABB.
			die einzelnen Scha DUT: OFF SELECTE		stellen:		
1	- LEERLAUFSTROM	-	Einen Gleichspannungs- messer über CP1 (L) CP2 (R) anschließen. (X09-)	VOLUME: 0	VR1 (L) VR2 (R) (X09-)	15 mV (34 mA).	(a)



# KA-4040R KA-4040R WIRING DIAGRAM

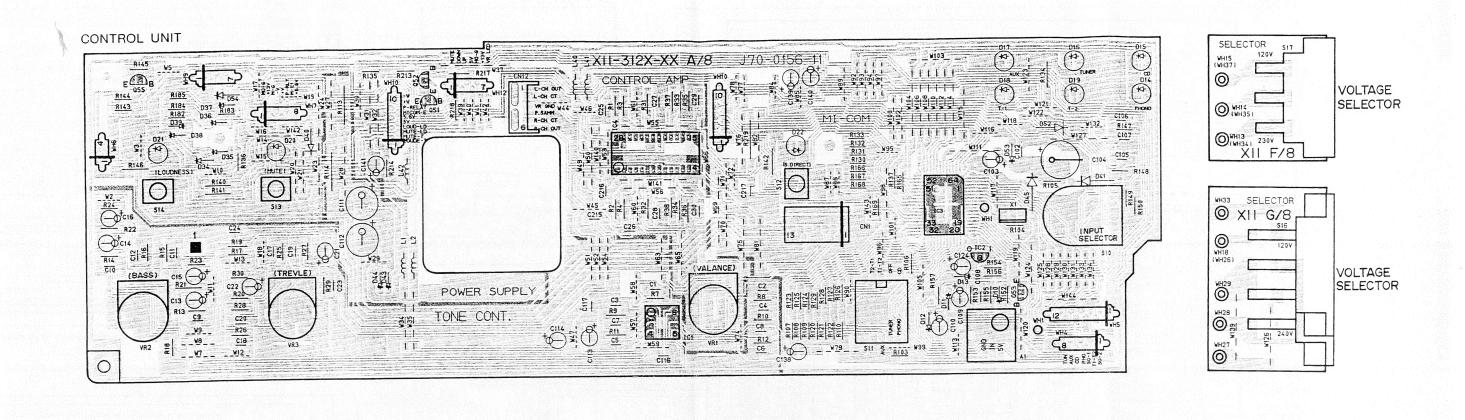


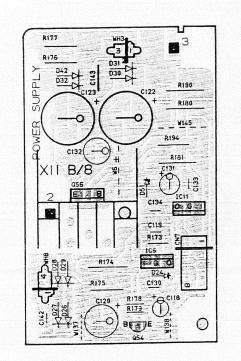
# PC BOARD (Component side view)

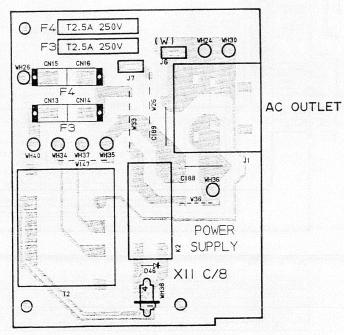


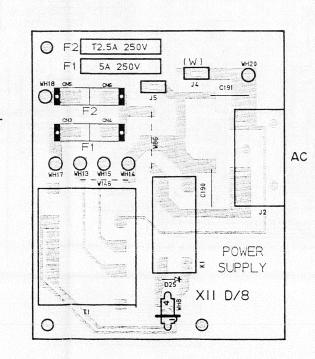
**PHONES** 

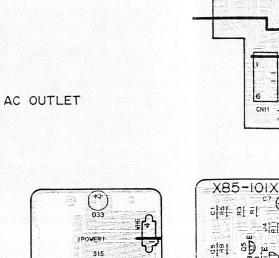
# PC BOARD (Component side view)







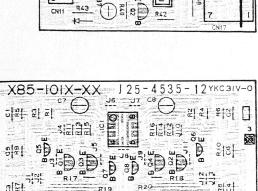




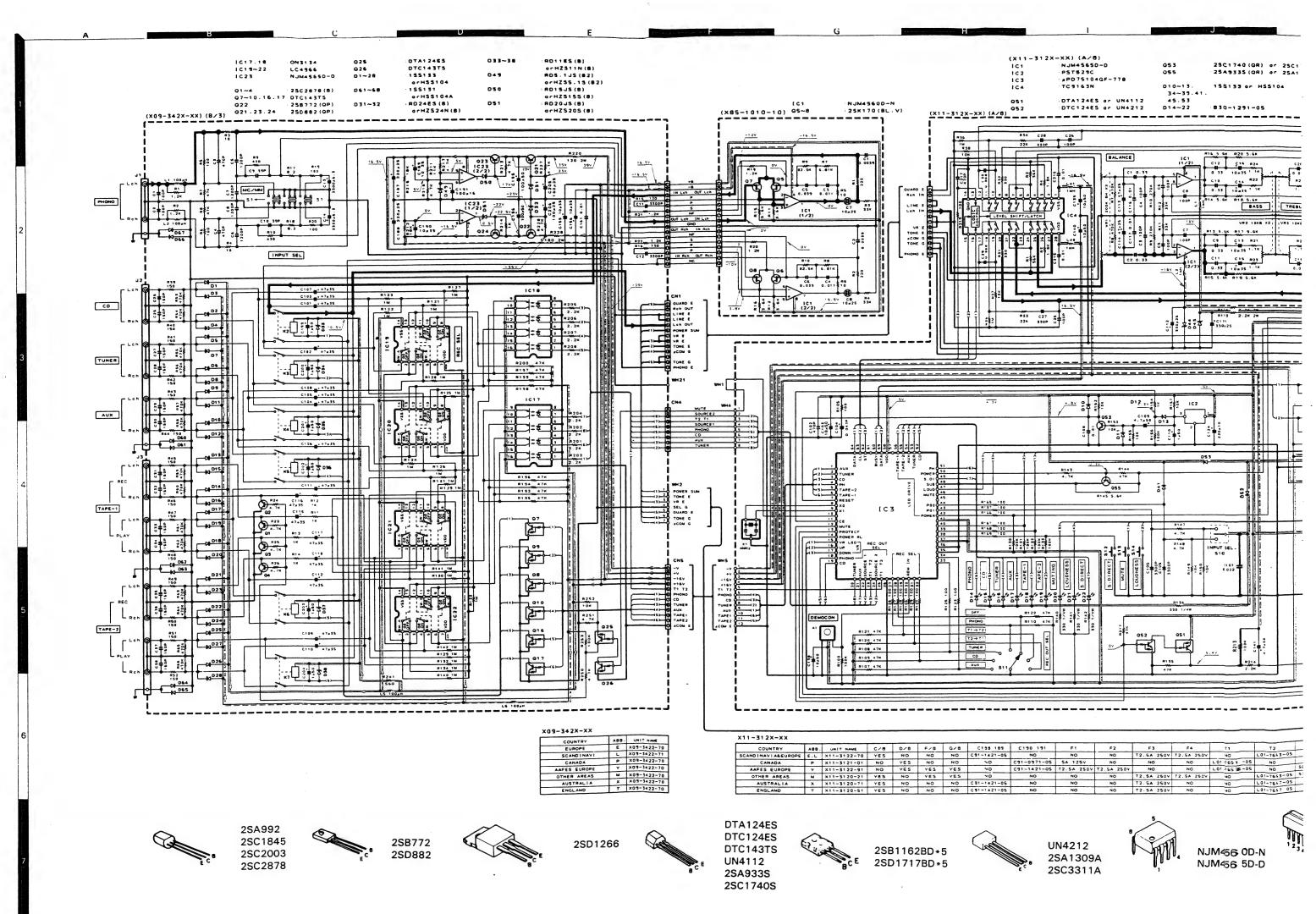
MASTER VOLUME

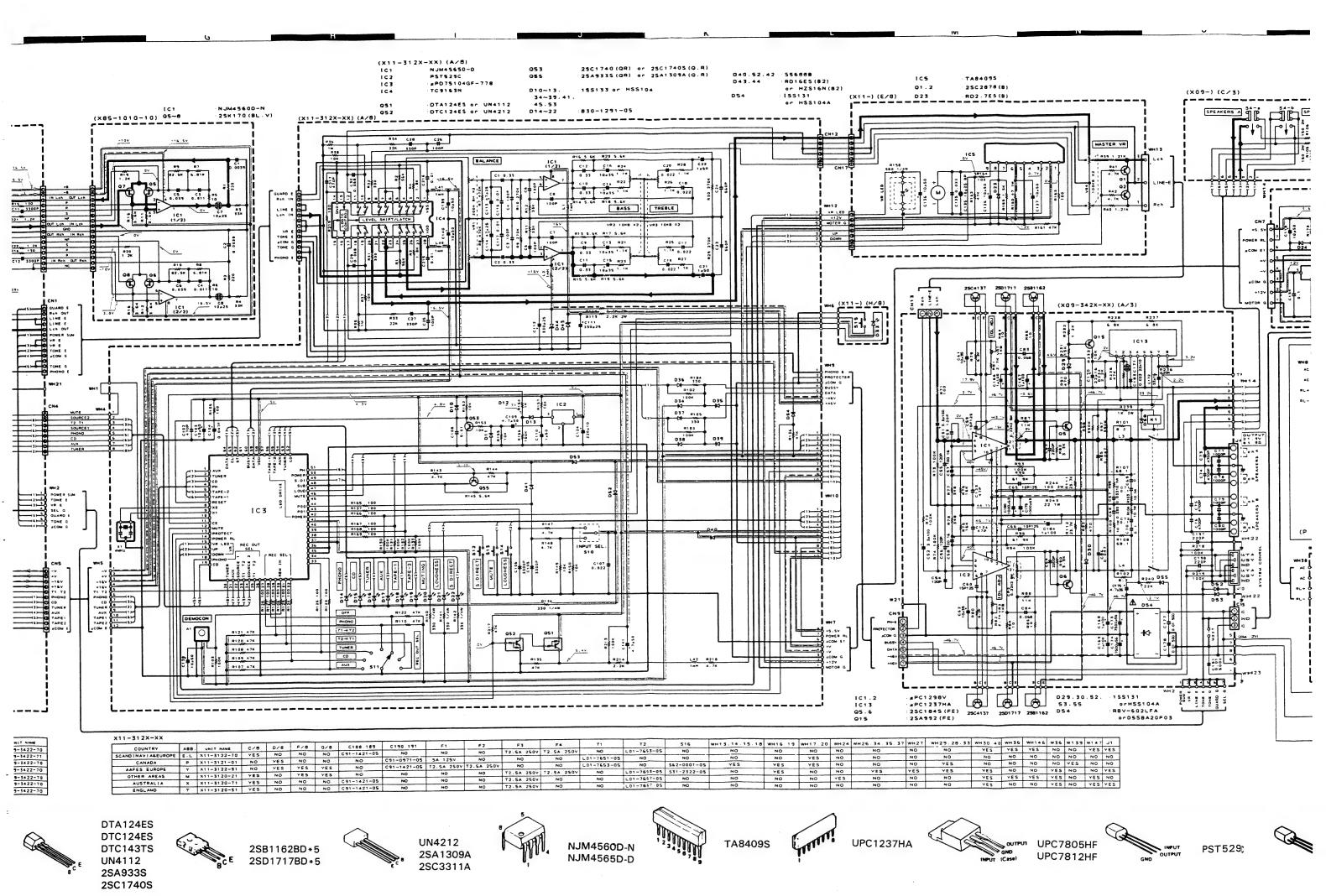
0

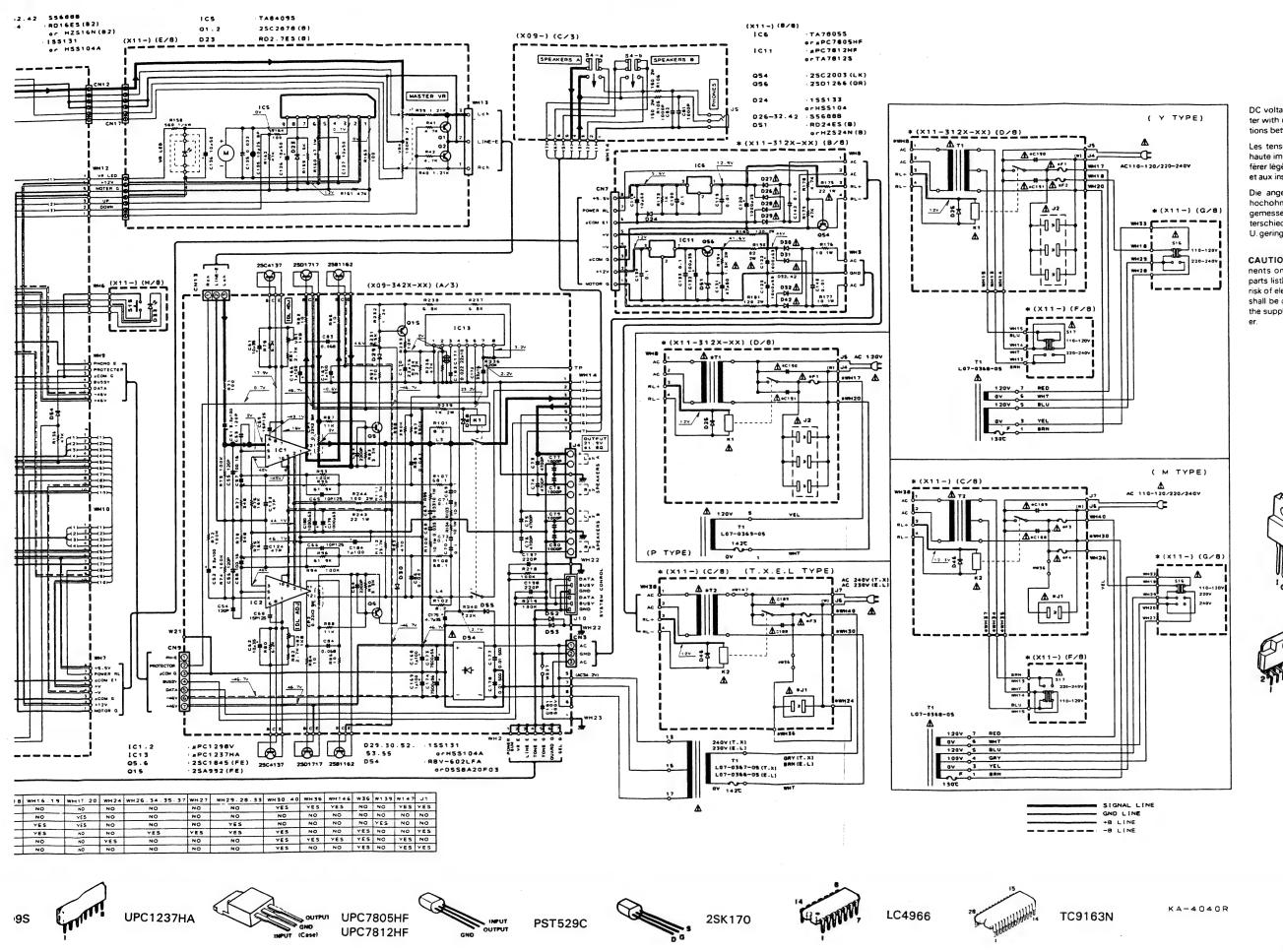
XII H/8



XII E/8







DC voltages are as measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance sans signal d'entrée. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser ohne Eingangssignal gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). 🐧 Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the custom-



TA7805S TA7812S



UPC1298V



× New Parts

Parts without Parts No. are not supplied.

Telle ohne Parts No. werden nicht gellefert.

Les articles non mentionnes dans le Parts No. ne sont pas fournis.

No. 3

DESTINATION LIST	
	Destination
KA-4040R	E, L, T, X, Y, M, P

### **AUDIO UNIT** E, T, X, Y, M, P X09-3422-70

## X09-3422-71 **CONTROL UNIT**

X11-3120-21	M
X11-3120-51	Т
X11-3120-71	X
X11-3121-01	Р
X11-3122-70	E, L
X11-3122-91	Υ

PRE AMPLIFIER UNI	PLIFIER UNI	A	RE	P
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x New Parts

Parts without Parts No. are not supplied.

Telle ohne Parts No. werden nicht gellefert.

PRE AMPLIFIER OWN	
X85-1010-10	E, L, T, X, Y, M, P

Raf. No.	Address 位 置	Now Purts	Parts No. 都品普号	Description 都品名/規格	Desti- nation 住 庙	RES
- m = 7				4040R		_
501	1A	*	A01-1986-02	METALLIC CABINET		
502	2A, 2B	*	A60-0102-01	PANEL ASSY		
505	18	*	X94-1000-00	REMOTE CONTROL ASSY		
506	18	*	A09-0115-13	BATTERY COVER		
509	2A, 3B	*	801-0483-01	PANEL ESCUTCHEON		
512	2A		B43-0287-04	KENWOOD BADGE	v	
	1		B46-0094-03 B46-0095-03	WARRANTY CARD	Y	Ì
			B46-0096-23	WARRANTY CARD	X	
			846-0121-03	WARRANTY CARD	P	
			846-0122-13	WARRANTY CARD	EL	l
-			B46-0143-13	WARRANTY CARD	T	1
-		_	858-0513-04 860-0559-00	CAUTION CARD (PRESET220-240)	Y	
•		*	00-6550-00	INDINOCION NAMONECEMOLISM		
-		*	B60-0560-00	INSTRUCTION MANUAL (FRENCH)	ELMP	1
-		*	B60-0561-00	INSTRUCTION MANUAL(GE, DU, IT) INSTRUCTION MANUAL(CHINESE)	EL	1
-		*	B60-0562-00 B60-0656-00	INSTRUCTION MANUAL (SPANISH)	M	
=						
613	3B,3C	*	D21-1657-13	EXTENSION SHAFT(K29-4293 ASSY)		1
615	18		E03-0115-05	AC PLUG ADAPTER	H.	l
616	10		E30-0459-05	AC POWER CORD	EL	1
616 616	1 D 1 D		E30-0459-05 E30-0685-05	AC POWER CORD	Y	
616	10		E30-0974-05	AC POWER CORD	P	1
616	10	1	E30-1341-05	AC POWER CORD	x	
616	1 D		E30-1416-05	AC POWER CORD	τ̈́	1
618	3B, 2C		E31-4747-05	PLAT CABLE (X09CN1-X11CN1) 13P	x	
-	1		EQ3-0114-05	AC OUTLET	^	
620	2 A		G11-0155-14	SOFT TAPE (40X9X2)		
		*	H50-0127-04	ITEM CARTON CASE		
•		*	H10-5168-02 H10-5169-02	POLYSTYRENE FOAMED FIXTURE POLYSTYRENE FOAMED FIXTURE		
		1	H25-0225-04	PROTECTION BAG (850X450X0.03)	ELXYMP	
-			H25-0232-04	PROTECTION BAG (235X350X0.03)	ELXYMP	1
			H25-0651-04	PROTECTION BAG (0232 PRINTED)	т	1
-		*	H25-0654-04	PROTECTION BAG (0225 PRINTED)	Ť	1
624	30 30		J02-1072-05	FOOT		
625	3C,3D	1	J19-0514-05	UNIT HOLDER		
626	10	1	J19-3178-05	UNIT HOLDER		1
627	2C 2B		J19-3179-05 J19-3296-03	UNIT HOLDER HEAD PHONE JACK HOLDER	1	1
628	20		317-3270-03			
629	1 D		J42-0083-05 J61-0307-05	POWER CORD BUSHING		1
630	3B		K29-3405-04	KNOB (K29-4293-04 ASSY) KNOB POWER		1
631 632	3A 3A	1:	K29-4210-03 K29-4213-04	KNOB ASSY MASTER VOLUME	1	1
633	3A	*	K29-4215-04	KNOB INPUT SELECTOR	1	
634	34	*	K29-4216-04	KNOB TONE, BAL, RECOUT SEL		1
635	3B, 3C		K29-4293-13	KNOB CARTRIDGE		

L:Scandinavia K:USA Y:PX(Far East, Hawaii) T:England Y:AAFES(Europe)

£:Europe

⚠ indicates safety critical components.

Parts without Parts No. are not supplied. Les articles non mentionnes dans le Parts No. ne sont pas fournis.

No. 2

No. 1

Ref. N 学開報		Address 位 屋	Naw Parts <b>B</b> i	Parts No. 部品音号	Description 部 品 名/規 格	Desti- nation 仕 角	Re- mari 備利
640 640 640		18 18 18	* * *	L07-0366-05 L07-0367-05 L07-0368-05 L07-0369-05	POWER TRANSFORMER POWER TRANSFORMER POWER TRANSFORMER POWER TRANSFORMER	EL TX YM P	
645 A C E F		1D 1B,1C 2A,3A 1A 2A		N08-0128-35 N09-0333-05 N09-1445-05 N09-2768-05 N30-3008-46	BINDING POST (EARTH) TAPPING SCREW (3X12) SET SCREW (M3X0) TAPTITE SCREW (4X8) PAN HEAD MACHIN SCREW		
G J K		1C,1D 3C,3D		N89-3008-45 N89-4008-45 N17-1030-46	BINDING HEAD TAPTITE SCREW BINDING HEAD TAPTITE SCREW TOOTHED LOCK WASHER		
Q1 .2 Q3 .4 Q5 ,6				2SD1717BD*5 2SB1162BD*5 2SC4137F19(V,W)	TRANSISTOR TRANSISTOR TRANSISTOR		
					9-3422-70: E, T, X, Y, M, P, 2	·/1: L)	
C1 ,2 C3 ,4 C5 -8 C9 ,16 C11 ,13	0 2			CF92FV1H101K CF92FV1H471J CF92FV1H122J CC45FSL1H390J CF92FV1H332J	MF 100PF K MF 470PF J MP 1200PF J CERAMIC 39PF J MF 3300PF J		
C13 ,14 C25 -36 C51 ,55 C53 ,56 C55 ,56	8 2 4		*	C90-1951-05 CF92FV1H151K CE04KW2A3R3M CC45FSL1H121J CF92FV1H121K	ALMINIUM ELECTROLYTIC C. MF 150PF K ELECTRO 3.3UF 100WV CERANIC 120PF J MF 120PF K		
C57 ,50 C59 ,60 C61 ,60 C63 ,60 C65 ,60	2			C90-1917-05 CC45FSL1H150J CE04KW1V100M CK45FB1H222K CC45FSL1H100D	ELECTRO 100UF 16WV CERAMIC 15PF J ELECTRO 10UF 35WV CERAMIC 2200PF K CERAMIC 10PF D		
C67 .66 C69 -75 C73 -76 C77 -85 C83 .86	2 6 2			CF92FV1H333J CF92FV1H104J CF92FV1H472J CK45FB1H102K CF92FV1H683J	MF 0.033UF J MF 0.10UF J MF 4700PF J CERAMIC 1000PF K MF 0.068UF J		
C85 ,86 C101-11 C115-11 C123,12 C155,15	12 18 24			CF92FV1H473J CE04KW1V470H CE04KW1V470M CC45FSL1H470J CE04KW1J100M	MF 0.047UF J ELECTRO 47UF 35WV ELECTRO 47UF 35WV CERAMIC 47PF J ELECTRO 10UF 63WV		
C161 C166-16 C170 C171 C172	69			CF92FV1H103J CE04KW2A010M CE04KW1C220M C90-1333-05 CE04KW1C330M	MF 0.010UF J ELECTRO 1.0UF 100WV ELECTRO 22UF 16WV NP-ELEC 22UF 10WV ELECTRO 33UF 16WV		
C173,17 C175 C177,17 C179,18 C181	78			C90-1824-15 CE04KW1V4R7M CK45FE2H103P CE04KW1J102M CK45FF1H103Z	ALMINIUM ELECTROLYTIC C. ELECTRO 4.7UF 35WV CERAMIC 0.010UF P ELECTRO 1000UF 63WV CERAMIC 0.010UF Z		
C103 C184 C107,16	98			CF92FV1H223J CE04KW2A010M CE04KW1E221M	MF 0.022UF J ELECTRO 1.0UF 100WV ELECTRO 220UF 25WV		

L:Scandinavia	K:USA	P:Canada
Y:PX(Far East, Hawaii)	T:England	E:Europe
VALCECIENNOS	Y. Australia	WOlfver Areas

A indicates safety critical components.

					- 11-
C189,190 C191 C195,196 C197,198 C199-204			CE04KW1V100M CE04KW1C101M CE04KW1H101M CC45FSL2H221J CE04KW1H010M	ELECTRO 10UF 35NV ELECTRO 100UF 16NV ELECTRO 100UF 50NV CERANIC 220PF J BLECTRO 1.0UF 50NV	
C205,206			CE04KW1E101M	ELECTRO 100UF 25WV	
J1 J2 J3 J4 J4		*	E13-0249-05 E13-0633-05 E13-0825-05 E20-0839-15 E20-0840-15	PHONO JACK PHONO PHONO JACK CD.TUNER, AUX PHONO JACK TAPE1, TAPE2 SCREW TERMINAL BOARD SPEAKERS SCREW TERMINAL BOARD SPEAKERS	ETXYMP L
J5 J10		*	E11-0208-05 E11-0188-05	PHONE JACK PHONES PHONE JACK SYSTEM CONTROL	
-			J11-0098-05 J61-0307-05	WIRE CLAMPER WIRE BAND	
L1 ,2 L3 ,4 L5 ,6			L40-1011-47 L39-0085-05 L40-1011-17	SMALL FIXED INDUCTOR(100UH,K) PHASE-COMPENSATION COIL SMALL FIXED INDUCTOR(100UH,K)	
G H	1C,2C 1C,2C		N89-3008-45 N89-3012-45	BINDING HEAD TAPTITE SCREW BINDING HEAD TAPTITE SCREW	
CP1 ,2 R73 .74 R77 ,78 R83 -86 R93 ,94			R90-0187-05 RN14BK2C1003FTS RN14BK2C3480FTS R014AB2E100JTS RN14BK2E1003FTS	MULTI-COMP 0.22X2 K 5W RN 100K F 1/6W RN 348.0 F 1/6W FL-PROOF RD 10 J 1/4W RN 100K F 1/4W	
R95 .96 R99 .100 R101,102 R103,104 R105,106		*	RN14BK2E6192FTS RS14GB3A100JKW RD14AB2EBR2JTS RS14GB3A100JKW RS14DB3D151JTE	RN 61.9K F 1/4W FL-PROOF RS 10 J IW FL-PROOF RD 0.2 J 1/4W FL-PROOF RS 10 J IW FL-PROOF RS 150 J 2W	
R107,108 R111,112 R220 R221 R239		*	RN14BK2E68R1FTS RN14BK2E2372FTS RS14DB3D121JTE RS14DB3D161JTE RS14DB3D102JTE	RN 68.1 F 1/4W RN 23.7K F 1/4W FL-PR@OF RS 120 J 2W FL-PR@OF RS 180 J 2W FL-PR@OF RS 1.0K J 2W	
R243 R244 VR1 ,2		*	RS14GB3A220JKW RS14GB3A101JKW R12-1063-05	FL-PROOF RS 22 J 1W FL-PROOF RS 100 J 1W TRIM POT. 1K	
K1 K2 -7 S1 S4			S51-2092-05 S51-2009-05 S40-6035-05 S42-2139-05	MAGNETIC RELAY MAGNETIC RELAY PUSH SWITCH MULTIPLE PUSH SWITCH	
D1 -28 D1 -28 D29 .30 D29 .30 D31 .32			HSS104 15S133 HSS104A 15S131 HZS24N(B)	DIODE DIODE DIODE DIODE ZENER DIODE	

ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE

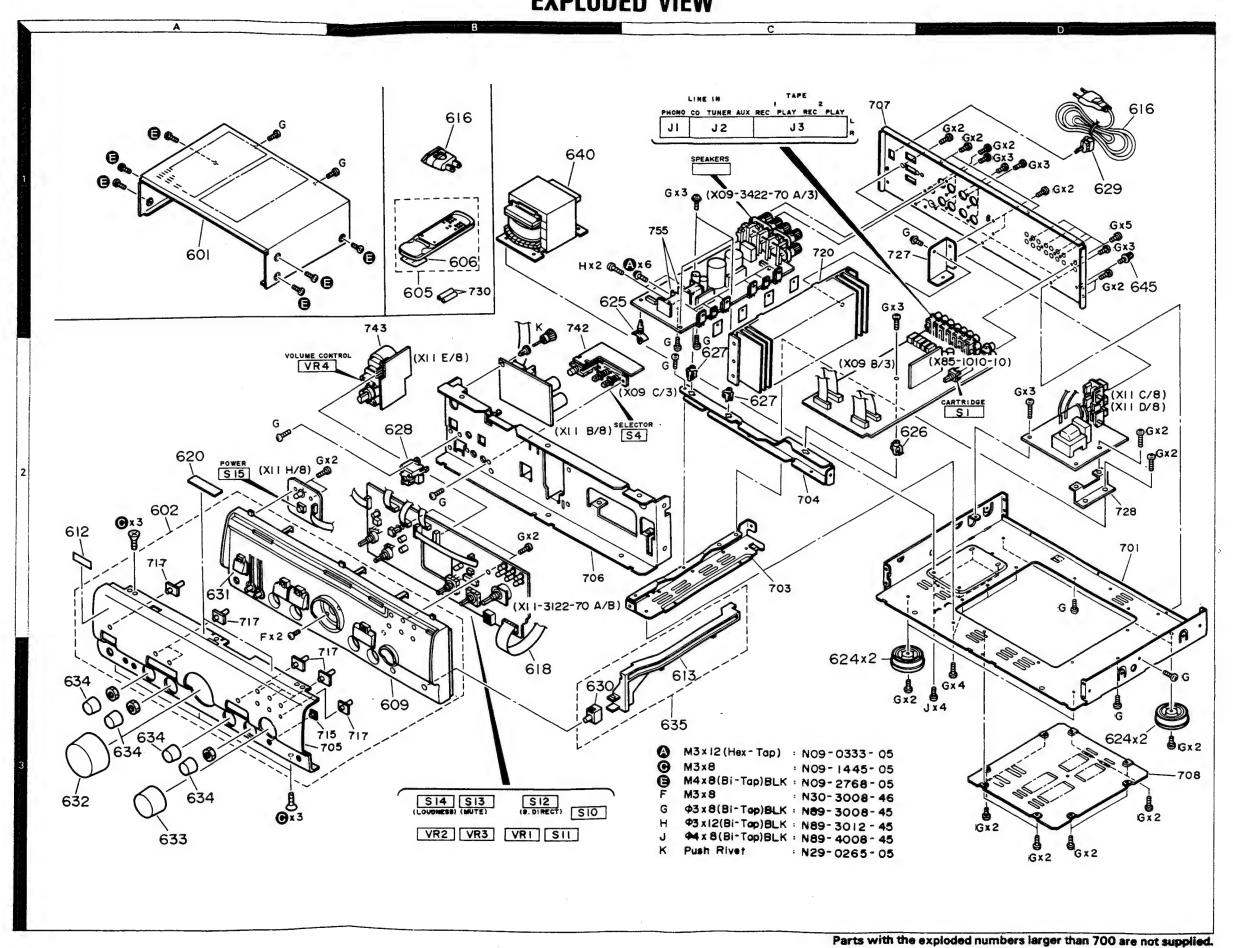
K:USA P:Canada T:England E:Europe L:Scandinavia Y:PX(Far East, Hawaii) X:Australia M:Other Areas Y:AAFES(Europe)

RD24ES(B) HZS11N(B) RD11ES(B) HZS5.1S(B2) RD5.1JS(B2)

D31 ,32 D33 -38 D33 -38 D49 D49

⚠ indicates safety critical components

# KA-4040R KA-4040R EXPLODED VIEW



Parts without Parts No. are not supplied

Les articles non mentionnes dans le Parts No. ne sont pas fournis.

155131

UPC1298V

No. 4

Teile on le Parts No. werden nicht geliefert. Desti- Re-nation marks 仕 向儀考 Description Parts No. Address New Ref. No. 部品名/規格 位置新 部品書号 **多無無号** ZENER DIODE ZENER DIODE ZENER DIODE D50 D50 D51 HZS15S(B) RD15JS(B) HZS20S(B) ZENER DIODE RD20JS(B) 051 052 ,53 DIODE HSS104A D52 ,53 D54 D54 DIODE 155131 D5SBA20F03 RBV-602LFA DIODE DIODE DIODE HSS104A 1SS131 D55 DIODE D55 DIODE HSS104A D60 -68

060 -68 IC1 ,2 IC13 IC17,18 IC(POWER AMP DRIVER)
IC(POWER AMP)
IC(OPTICAL ISOLATOR) UPC1237HA ON3134 IC(CMOS LOGIC BILATERAL SW)
IC(OP AMP X2)
TRANSISTOR IC19-22 IC23 Q1 -4 Q5 ,6 Q7 -10 LC4966 NJM4565D-D 2SC2878(B) 2SC1845(F,E) TRANSISTOR DIGITAL TRANSISTOR DTC143TS Q15 Q16 ,17 Q21 Q22 Q23 ,24 TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR 2SA992(F,E) DTC143TS 250882(Q,P) 2SB772(Q,P) TRANSISTOR TRANSISTOR 2SD882(Q,P) DIGITAL TRANSISTOR DIGITAL TRANSISTOR Q25 Q26 DTA124ES DTC143TS

	CONTROL UNIT	(X11-3121-XX)	
D14 -22 D33	830-1291-05 830-1291-05	LED LED	
C1 ,2 C3 -8 C9 -12 C13 -16 C17 -20	CF92FV1H334J CF92FV1H101K CF92FV1H334J CE04KW1V100M CF92FV1H223J	MF 10 MF 0. ELECTRO 10	33UF J OPF K 33UF J UF 35WV 022UF J
C21 .22 C23 .24 C25 .26 C27 .28 C29 ,30	CE04KW1H010M CF92FV1H561J CF92FV1H101K CF92FV1H331K CF92FV1H683J	MF 56 MF 10 MF 33	OUF 50WV OPF J OPF K OPF K
C102 C103 C104 C105,106 C107	CF92FV1H471J CE04KW1H100M C90-1827-05 CK45FB1H332K CF92FV1H223J	ELECTRO 10 BACKUP 0. CERAMIC 33	OPF J UF 50WV 047F 5.5WV 000PF K 022UF J
C108 C109 C110 C111,112 C113,114	CF92FV1H103J CE04KW1H4R7M CE04KW1H010M CE04KW1E331M CE04KW1E470M	ELECTRO 4. ELECTRO 1. ELECTRO 33	010UF J 7UF 50WV 0UF 50WV 0UF 25WV UF 25WV
C116,117 C118 C119 C120	CF92FV1H103J CE04KW1H100M CF92FV1H103J CE04KW1E102M	ELECTRO 10	010UF J DUF 50WV 010UF J 000UF 25WV

L'Scandinavia

K:USA

Y:PX(Fa East, Hawaii) Y:AAFES(Europe)

P:Canada T:England E:Europe

X:Australia M:Other Areas

A indicates safely critical components

. New Parts

Parts without Parts No. are not supplied.

ties articles non mentionnes dans le Parts No, ne sont pas fournis.

Teile ohne Parts No. werden nicht gellefent.

No. 5

Ref. No.	Address		Parts No.	Description	Desti-
参照番号	位重	arts #	部品番号	部品名/規格	仕 向
C122,123 C124 C125 C126,127			CE04KW1A221M CF92FV1H223J	ELECTRO 1000UF 63WV ELECTRO 220UF 10WV MF 0.022UF J ELECTRO 10UF 50WV MF 0.10UF J	
C131 C132 C133,134 C135 C136			CE04KW1H470M CE04KW1V101M CF92FV1H104J C90-1332-05 CE04KW1H100M	ELECTRO 47UF 50WV ELECTRO 100UF 35WV MF 0.10UF J NP-ELEC 10UF 25WV ELECTRO 10UF 50WV	
C138-140 C141 C142 C143 C188,189			CE04KW1H100M CE04KW1H4R7M CK45FF1H103Z CK45FE2H103P C91-1421-05	ELECTRO 10UF 50WV ELECTRO 4.7UF 50WV CERAMIC 0.010UF Z CERAMIC 0.010UF P FILM 0.01UF 250AC	ELTXM
C190,191 C190,191 C215,216 C217			C91-0971-05 C91-1421-05 CF92FV1H103J CK45FB1H471K	FILM 0.01UF 250WV FILM 0.01UF 250AC MF 0.010UF J CERAMIC 470PF K	P Y
J1 J1 J2			E03-0108-05 E03-0109-05 E03-0111-05	AC QUTLET AC QUTLET AC QUTLET	ELM T YP
F1 F1 ,2 F3 ,4			F04-5022-05 F05-2525-05 F05-2525-05 F05-2525-05	FUSE (UL) (125V 5A UL) FUSE (SEMKO) (250V T2.5A) FUSE (SEMKO) (250V T2.5A) FUSE (SEMKO) (250V T2.5A)	P TX ELM
CN3 -6 CN3 ,4 CN13-16 CN13,14			J13-0075-05 J13-0075-05 J13-0075-05 J13-0075-05	FUSE CLIP FUSE CLIP FUSE CLIP FUSE CLIP	Y P ELM TX
L1 ,2 L40 -42 T1 T1 T2			L40-1021-14 L40-1021-14 L01-7651-05 L01-7653-05 L01-7653-05	SMALL FIXED INDUCTOR(1.0MH,K) SMALL FIXED INDUCTOR(1.0MH,K) POWER TRANSFORMER POWER TRANSFORMER POWER TRANSFORMER	P Y ELM
T2 X1			L01-7657-05 L78-0267-05	POWER TRANSFORMER RESONATOR 4MHz	TX
G H	2A,38 2A,3B		N89-3008-45 N89-3012-45	BINDING HEAD TAPTITE SCREW BINDING HEAD TAPTITE SCREW	
R39 ,40 R113,114 R160 R174 R175			RN14BK2C1211FTS RS14DB3D222JTE RS14DB3A470JTE RS14DB3D470JTE RS14DB3D470JTE	RN 1.21K F 1/6W FL-PR00F RS 2.2K J 2W FL-PR00F RS 47 J 1W FL-PR00F RS 47 J 2W FL-PR00F RS 22 J 1W	
R176,177 R180,181 R190 R191 R194			RS14DB3A100JTE RS14DB3D121JTE RS14DB3DB20JTE RD14AB2E120JTS RS14DB3A152JTE	FL-PROOF RS 10 J 1W FL-PROOF RS 120 J 2W FL-PROOF RS 82 J 2W FL-PROOF RD 12 J 1/4W FL-PROOF RS 1.5K J 1W	
VR1 VR2 ,3 VR4		*	R06-5191-05 R06-3061-05 R29-5058-05	POTENTIOMETER BALANCE POTENTIOMETER BASS, TREBLE POTENTIOMETER MASTER VOLUME	

L:Scandinavia Y:PX(Far East, Hawaii)

KUSA P:Canada T:England E:Europe

Y: AAFES(Europe)

X: Australia M: Other Areas

No 7

× New Parts

Forts without Parts No. are not supplied.

ties articles non mentionnes dans le Parts No. ne sont pas fournis.

No. 6

Teile offrie Parts No. werden nicht gellefer t Desti-Re-nation marks 仕 向儘考 Parts No. Description Address New Ref. No. 部 品 名/ 規 格 位置 然 品 華 号 S51-1052-05 MAGNETIC RELAY MAGNETIC RELAY ELTXM 551-1052-05 K2 ROTARY SWITCH RECOUT SELECTOR 560-0009-05 511 PUSH SWITCH 540-1064-05 512 -15 VOLTAGE SELECT S31-2322-05 SLIDE SWITCH 516 VOLTAGE SELECT SLIDE SWITCH S16 ,17 S62-0001-05 562-0001-05 SLIDE SWITCH 517 T99-0521-05 ROTARY ENCODER INPUT SELECTOR S10 DIODE DIODE ZENER DIODE 010 -13 D10 -13 155133 D23 HZS2.7N(B) RD2.7ES(B) ZENER DIODE D23 HSS104 DIODE D24 DIODE D24 155133 DIODE HSS104A D25 DIODE D25 DIODE D26 -32 S5688B D34 -39 HSS104 DIODE DIODE 155133 034 -39 DIODE 556888 D40 HSS104 1SS133 DIODE D41 DIODE D41 DIODE D42 S5688B ZENER DIODE D43 ,44 HZS16N(82) ZENER DIODE D43 ,44 RD16ES(B2) DIODE D45 HSS104 D45 155133 DIODE ELTXM D46 HSS104A DIODE ELTXM 155131 DIODE D46 ZENER DIODE HZS24N(B) D51 D51 RD24ES(B) ZENER DIODE S56888 DIODE 052 HSS104 DIODE D53 DIODE 155133 D53 DIODE HSS104A D54 155131 D54 IC(OP AMP X2) NJM4565D-D IC1 IC(SYSTEM RESET) IC2 PST529C IC3 UPD75104GF-778 IC(BILATERAL SWITCH X16)
IC(MOTOR CONTROL)
IC(VOLTAGE REGULATOR/ +5V) TC9163N IC4 TA84095 105 IC6 TA78055 IC(VOLTAGE REGULATOR/ +5V) IC6 UPC7805HF IC(VOLTAGE REGULATOR/ +12V) IC11 TA7812S UPC7812HF IC(VOLTAGE REGULATOR/ +12V) IC11 2SC2878(B) TRANSISTOR Q1 ,2 DIGITAL TRANSISTOR DTA124ES Q51

L:Scandinavia

Y:PX(Far East, Hawaii)

Y:AAFES(Europe)

Q51

952 952

**Q53** 

**Q53** Q54

> K:USA X: Australia

UN4112

DTC124ES

UN4212 2SC1740S(Q,R)

P:Canada T:England E:Europe

2SC3311A(Q,R)

2SC2003(L,K)

M:Other Areas

TRANSISTOR

TRANSISTOR

TRANSISTOR

DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR

A indicates safety critical components.

× New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnes dans le Parts No, ne sont pas fournis.

No.	Address			Par	ts	No.			•			Desti- nation	Re- mark
番号	位 置	*	8	A	1	# <del>4</del>	黟	A	名/規	格		住 病	備考
							TRANSISTOR						
							TRANSISTOR TRANSISTOR						
													L
			PRE	AN	ΛP	LIFIER	UNIT (X85-						1
, 4			CF92	2FV1	H1	13J	MF MF	- (	0.011UF				
							NP-ELEC				5 <b>WV</b>		
,8 ,10							RN RN			F	1/6W 1/6W		
-8			2SK	170	BL	.)	IC FET						
-8			25K	170	(V)	)	FET						
			İ				Ì						
	No. 1番号 ,4 ,6 ,8 ,10	,2 ,4 ,6 ,8 ,10	番号   位 置 新   F	日番号 位 軍 所 当 2SA1 2SA2 2SD1 W02	日番号 位	2SA1309A( 2SA9335(Q 2SD1266(Q W02-1046- PRE AMP  ,2 ,4			1 番号   位 置 所	2	2SA1309A(Q,R)		2

L:Scandinavia KUSA P:Canada Y:PX(Far East, Hawaii) T:England E:Europe Y:AAFES(Europe) X: Australia M:Other Areas

A indicates salety critical components.

# **SPECIFICATIONS**

# (For U.K. and Europe)

O at a second names output
Continuous rated power output
(DIN) 1 kHz, at 8 Ω
at 4 Ω 90 W+90 W
(IEC/NE) From 63 Hz to 12,500 Hz, 0.7% T.H.D.
at 8 Ω 70 W + 70 W
at 4 Ω 90 W + 90 W
Dynamic power
120 W (4 \lambda)
140 W (2 Ω)
Total harmonic distortion
0.06% (20 Hz ~ 20,000 Hz, 60 W, 8 Ω)
0.03% (1 kHz, 60 W, 8 Ω)
Intermodulation distortion 0.06% (60 W, 8 $\Omega$ )
(70 Hz : 7 kHz = 4:1)
Frequency response
CD 5 Hz ~ 100 kHz, +0 dB, -3 dB
PHONO 'RIAA' response
20 Hz ~ 20 kHz, +0.3 dB, -0.3 dB
Maximum input level
PHONO (MM) 120 mV, 0.06% T.H.D. at 1 kHz
PHONO (MC) 10 mV, 0.06% T.H.D. at 1 kHz
Signal to noise ratio PHONO (MM) 87 dB (IHF '66)/80 dB (IHF '78)
PHONO (MC) 67 dB (IHF '66)/74 dB (IHF '78)
PHONO (MC) 67 dB (IIII 00)/74 dB (IIII
CD/TUNER/AUX/TAPE 101 dB (IHF '66)/82 dB (IHF '78)
PHONO (MM) 58 dB (DIN, 50 mW output)
CD/TUNER/AUX/TAPE
59 dB (DIN, 50 mW output)

Input sensitivity/impedance
PHONO (MM) 2.5 mV/47 kΩ
PHONO (MC) 0.2 mV/100 Ω
CD/TUNER/AUX/TAPE 200 mV/47 kΩ
Tone control
BASS ± 10 dB (at 100 Hz)
TREBLE ± 10 dB (at 10 kHz)
Loudness control
VOLUME at - 30 dB level
+6 dB (100Hz), +3 dB (10 kHz)
Output level/impedance
TAPE REC 200 mV/1 kΩ
General
Power consumption 200 W
AC outlet
SWITCHED 200 W max.
Dimensions W: 440 mm (17-5/16")
H: 137 mm (5-3/8'')
D: 345 mm (13-9/16")
Weight (net) 8.7 kg (19.2 lb)

# (For other countries)

Continuous rated power output
(IHF '66) From 20 Hz to 20,000 Hz 0.06% T.H.D.
at 8 \Omega 60 W + 60 W
(IEC/NF) From 63 Hz to 12,500 Hz, 0.7% T.H.D.
at 8 Ω 70 W + 70 W
at 4 \( \Omega \) 90 W + 90 W
Dynamic power 90 W (8 Ω)
140 W (2 Ω)
***************************************
Damping factor 60 (50 Hz)
Total harmonic distortion
0.06% (20 Hz ~ 20,000 Hz, 60 W, 8 Ω)
0.03% (1 kHz, 60 W, 8 Ω)
Intermodulation distortion 0.06% (60 W, 8 Ω)
(70 Hz : 7 kHz = 4:1)
Frequency response
CD 5 Hz ~ 100 kHz, +0 dB, -3 dB
PHONO 'RIAA' response
20 Hz ~ 20 kHz, +0.3 dB, -0.3 dB
Maximum Input level
PHONO (MM) 120 mV, 0.06% T.H.D. at 1 kHz
PHONO (MC) 10 mV, 0.06% T.H.D. at 1 kHz
Signal to noise ratio
PHONO (MM) 87 dB (IHF '66)/80 dB (IHF '78)
PHONO (MC) 67 dB (IHF '66)/74 dB (IHF '78)
CD/TUNER/AUX/TAPE
101 dB (IHF '66)/82 dB (IHF '78)
101 45 1111 001102 45 1111

Input sensitivity/impedance
PHONO (MM) 2.5 mV/47 kΩ
PHONO (MC) 0.2 mV/100 Ω
CD/TUNER/AUX/TAPE 200 mV/47 kΩ
Tone control
BASS ± 10 dB (at 100 Hz)
TREBLE ± 10 dB (at 10 kHz)
Loudness control
VOLUME at -30 dB level
+ 6 dB (100Hz), +3 dB (10 kHz)
Output level/impedance
TAPE REC 200 mV/1 kΩ
General
Power consumption 200 W
AC outlet
SWITCHED Total 200 W max.
Dimensions W: 440 mm (17-5/16")
H: 137 mm (5-3/8")
D: 345 mm (13-9/16")
Weight (net)
trailite trati

# **SPECIFICATIONS**

# (For Canada)

Continuous rated power output (FTC)

60 watts per channel minimum RMS, both channels driven, at 8  $\Omega$  from 20 Hz to 20,000 Hz with no more than 0.06% total harmonic distortion.

	120 W (4 Ω)
	140 W (2 Ω)
Damping factor	60 (50 Hz)
otal harmonic distortion	0.06% (20 Hz~20,000 Hz, 60 W, 8 Ω) 0.03% (1 kHz, 60 W, 8 Ω)
ntermodulation distortion	0.06% (60 W, 8 Ω)
requency response	
CD	5 Hz~80 kHz, +0 dB, -3 dB
PHONO 'RIAA' response	20 Hz ~ 20 kHz, +0.3 dB, -0.3 dB
Maximum input level	
PHONO (MM)	120 mV, 0.06% T.H.D. at 1 kHz
PHONO (MC)	10 mV, 0.06% T.H.D. at 1 kHz
Signal to noise ratio	
PHONO (MM)	87 dB (IHF '66)/80 dB (IHF '78)
PHONO (MC)	67 dB (IHF '66)/74 dB (IHF '78)
CD/TUNER/AUX/TAPE	101 dB (IHF '66)/82 dB (IHF '78)
nput sensitivity/impedance	
PHONO (MM)	2.5 mV/47 kΩ
PHONO (MC)	0.2 mV/100 Ω
CD/TUNER/AUX/TAPE	200 mV/47 kΩ
Tone control	
BASS	± 10 dB (at 100 Hz)
TREBLE	± 10 dB (at 10 kHz)
oudness control	
VOLUME at - 30 dB level	+ 6 dB (100Hz), + 3 dB (10 kHz)
Output level/impedance	
TAPE REC	200 mV/1 kΩ
General	
Power consumption	2.5 A
AC outlets	
SWITCHED	For Canada:
STITI OHED	3: (Total 200 W, 1.6 A max.)
Dimensions	
Dimensions	H: 137 mm (5-3/8")
	D: 345 mm (13-9/16")
Weight (net)	

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice

### Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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